

### **REMARKS/ARGUMENTS**

Claims 1-7, 9-17 and 23 have been cancelled without prejudice or disclaimer of the subject matter contained therein.

Applicant expresses his sincere appreciation for the allowance of the subject matter of claims 12, 14 and 23.

Claim 8 has been placed in independent form by including the subject matter of claims 9, 10, 11 and 12 therein with claims 9-12 having been cancelled without prejudice or disclaimer and with Applicants reserving the right to present the subject matter thereof in continuing applications. With respect to claim 8 as amended, note that the subject matter of claim 10 is inclusive of the subject matter of claim 9 because it includes indexing the crystal axially and includes light annular arrays stacked axially within the crystal while claim 9 recites indexing the crystal axially to write an additional annular array. These limitations along with the conversion of the reference beam to a phase conjugate beam now occur in claim 8, as amended.

Claim 18 has been amended to incorporate the subject matter of allowed claim 23 which was initially depended from the subject matter of claims 19-21. Applicant respectfully submits that a combination of claims 18 and 23 clearly distinguishes over the prior art because the prior art does not disclose a phase conjugate mirror positioned radially of the crystal to produce a phase conjugate beam containing the images. The subject matter of claim 19 includes additional structures such as a support for the crystal wherein the support includes a motor, while the subject matter of claim 20 includes an axial translator associated with the support and the subject matter of claim 21 identifies the detector as a specific element in the form of a "charge coupled device." It is respectfully submitted that the structure recited in dependent claims 19-22 is more suitably set forth in separate

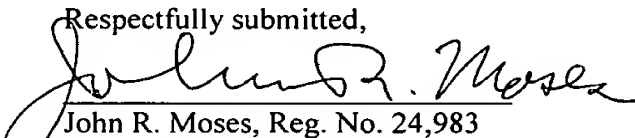
dependent claims because the prior art does not teach the concept of claim 23. In other words, the prior art does not teach a phase conjugate mirror positioned radially of the crystal to produce a phase conjugate beam (see the phase conjugate mirror 91 of Fig. 6 as being an example of such a structure). It is respectfully submitted that it is unduly limiting to claim 18, as amended, to require that the detector be a charge coupled device.

New claim 24 is a combination of independent method claim 8 and dependent method claims 12 and 13 combined to include the concept of converting the reference beam to a phase conjugate beam before being read.

In that this is a full and complete response to the Office Action of April 7, 2004, this application is now in condition for allowance. If the Examiner for any reason feels a personal conference with Applicant's attorneys might expedite prosecution of this application, the Examiner is respectfully requested to telephone the undersigned locally.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

  
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